Behavioral Game Theory: Towards a Realistic Representation of Strategic Behavior?

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Abstract

The domain of strategic interaction includes all those decision tasks in which the outcome of a decision depends on the decisions taken by a plurality of individuals, so that each individual must try to devise the most likely moves of the others in order to pursue the best course of action, knowing that all other actors are engaged in the same type of strategic thinking. Problems of strategic interaction in economics have been traditionally modelled using the formal language of game theory, first introduced by von Neumann and Morgenstern's 1944 seminal book *Theory of Games and Economic Behavior*. Game theory subsequently developed into a highly formal mathematical language used to describe the behavior of hyper-rational individuals in strategic contexts. Although born as a branch of applied mathematics and originally developed with the intention of making it the science of military conflict, its diffusion within economics has been extremely rapid, and related fields in the social sciences have recently begun to apply it to model behavior in a variety of social settings.

However, in the last decade, the usefulness of abstract game theory in predicting the behavior of individuals in real strategic settings has been increasingly brought into question, given the highly unrealistic assumptions about human rationality on which most of its models are based (e.g., Gigerenzer and Selten, 2001). As a consequence, the field of *behavioral game theory* has emerged (e.g., Camerer 2003a), with the purpose of building more descriptive theories of strategic behavior by relying on empirical observations of how real people actually solve strategic problems

in laboratory experiments, and by drawing on psychological theories of reasoning, problem solving and decision making to give an account of human behavior in games. This paper is an attempt at illustrating, by means of a few examples, part of the ongoing research in behavioral game theory (and the closely related field of experimental economics) especially as it concerns the two domains of social preferences and bounded rationality.